OSER RESERVOIR

Ripley County

2006 Fish Management Report

Clinton R. Kowalik
Assistant Fisheries Biologist

Larry L. Lehman
Fisheries Biologist

Fisheries Section
Indiana Department of Natural Resources
Division of Fish and Wildlife
I.G.C.-South, Room W273
402 W. Washington Street
Indianapolis, IN 46204

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EXECUTIVE SUMMARY

- Oser Reservoir (also known locally as Girl Scout Reservoir) is a 15-acre impoundment located approximately 1 mi south of Batesville in Ripley County. It is owned by the City of Batesville and is managed by the Batesville Water and Gas Utility as a water supply reservoir. Demand for water usually drops the lake's level 2 to 3 ft each fall. Oser does have a small parking lot, but does not have a ramp; however, small boats can be carried up and over the dam. No motors of any kind are allowed on the lake.

- A general lake survey was completed on Oser Reservoir on July 25 and 26, 2006. Water chemistry and aquatic vegetation data were also collected.

- The Secchi disk reading was 2.9 ft. The lake was thermally stratified into warm and cold layers. Dissolved oxygen concentrations were not adequate for fish survival below 6.0 ft. Submersed vegetation was found to a maximum depth of 7.5 ft. Eurasian watermilfoil (an undesirable exotic species) dominated the plant community, but chara and brittle naiad were also found frequently throughout the lake. Creeping water primrose was present on the surface along 90% of the shoreline.

- A total of 556 fish, representing eight species and hybrid sunfish, was collected during this survey. Bluegill ranked first by number, followed by gizzard shad, redear sunfish, largemouth bass, and channel catfish. Gizzard shad ranked first by weight, followed by channel catfish, largemouth bass, bluegill, and redear sunfish.

- Bluegill represented a balanced population with fish reaching 6.0 in TL (i.e. quality size) before their fifth summer.

- Largemouth bass represented a balanced population with some fish reaching 14.0 in TL (i.e. legal size) before their sixth summer.

- In Oser Reservoir, the DFW should maintain a 14-in minimum size limit on largemouth bass and reduce the number of channel catfish stocked every two years from 750 to 375.

INTRODUCTION

Oser Reservoir (also known locally as Girl Scout Reservoir) is a 15-acre impoundment located approximately 1 mi south of Batesville in Ripley County. It is owned by the City of Batesville and is managed by the Batesville Water and Gas Utility as a water supply reservoir. Demand for water usually drops the lake's level 2 to 3 ft each fall. Oser does have a small parking lot, but does not have a ramp; however, small boats can be carried up and over the dam. No motors of any kind are allowed on the lake.

The Division of Fish and Wildlife (DFW) of the Indiana Department of Natural Resources manages the fishery at Oser Reservoir. The lake has a 14-in size limit on largemouth bass and is currently stocked with 750 (50/acre) channel catfish every 2 years. Approximately 10,000 channel catfish have been stocked since the renovation in 1972. A previous survey was conducted in 1983; this survey was conducted to evaluate the current fishery.

METHODS

This survey was conducted on July 25 and 26, 2006, as part of a DFW work plan that covers management of fish populations in impoundments. Some physical and chemical characteristics of the water were measured in the deepest area of the reservoir according to standard lake survey guidelines (Shipman 2001). Submersed aquatic vegetation was sampled on July 26, 2006, using guidelines written by Pearson (2004). A GARMIN GPSmap 76 was used to record the location of the limnological data collection site, aquatic vegetation sample sites, and fish collection sites.

Fish were collected by pulsed D.C. electrofishing along the shoreline at night with two dippers for 0.50 h. One trap net and two experimental-mesh gill nets were also fished overnight. All fish collected were measured to the nearest 0.1 in TL. Average weights for fish by half-inch groups for Fish Management District 8 were used to estimate the weight of all species within the sample, except for a few individuals that were weighed in the field to the nearest 0.01 lb. Fish scale samples were taken from selected species for age and growth analysis.

Age-length keys were used to determine population age structure and to calculate mean total length for fish based on their length at capture. Proportional stock density (PSD) and relative stock density (RSD) were calculated for bluegill and largemouth bass using electrofishing data (Anderson and Neumann 1996). The Bluegill Fishing Potential (BGFP) index was used to assess bluegill fishing quality (Ball and Tousignant 1996). The BGFP index

uses mean back calculated lengths (instead of mean length at age—which was calculated for this survey) to determine the quality of growth; therefore, the total index score was estimated. This adaptation was approved by Bob Ball, one of the authors of the original index (personal communication).

RESULTS

Oser Reservoir was at normal pool. The Secchi disk reading was 2.9 ft. The lake was thermally stratified into warm and cold layers. Dissolved oxygen concentrations were not adequate for fish survival below 6 ft. Submersed vegetation was found to a maximum depth of 7.5 ft. Eurasian watermilfoil dominated the plant community, but chara and brittle naiad were also found frequently throughout the lake. Creeping water primrose was present on the surface along 90% of the shoreline.

A total of 556 fish, representing eight species and hybrid sunfish, was collected during this survey. Total weight of the fish sample was approximately 154 lbs. Species collected in past surveys since the renovation in 1972, but not in this survey, include black bullhead and green sunfish. Western mosquitofish were observed. Bluegill ranked first by number, followed by gizzard shad, redear sunfish, largemouth bass, and channel catfish. Gizzard shad ranked first by weight, followed by channel catfish, largemouth bass, bluegill, and redear sunfish.

A total of 289 bluegill was sampled that weighed 10 lbs. They ranged in length from 0.5 to 8.0 in TL. Relative abundance was 52% by number and 7% by weight. The electrofishing catch rate was 534.0/h. Bluegill did represent a balanced population; the bluegill PSD was 34. The bluegill RSD_8 was 4. In the sample, 9% of bluegill were 6.0 in or longer (i.e. quality size). The mean TL for age-4 fish in July was 6.8 in, which means that bluegill reached quality size before their fifth summer. Assuming at least *marginal* growth, the BGFP index score was in the excellent category.

A total of 97 gizzard shad were sampled that weighed 50 lbs. They ranged in length from 9.3 to 13.8 in TL. Relative abundance was 17% by number and 32% by weight. Only one gizzard shad was collected in 1983.

A total of 63 redear sunfish was sampled that weighed 9 lbs. They ranged in length from 2.2 to 8.5 in TL. Relative abundance was 11% by number and 6% by weight. The electrofishing catch rate was 112.0/h. In this sample, 24% of redear were 7.0 in or longer (i.e. quality size).

The mean TL for age-4 fish was 6.9 in, which means that some redear reached quality size during their 5th year of growth, which is average for southeastern Indiana.

A total of 55 largemouth bass was sampled that weighed 35 lbs. They ranged in length from 1.5 to 20.4 in TL. Relative abundance was 10% by number and 23% by weight. The electrofishing catch rate was 102.0/h. Largemouth did represent a balanced population; the largemouth PSD was 52. In this sample, 7% of bass were 14.0 in or longer (i.e. legal size). The mean TL for age-3 fish was 12.7 in, while the mean TL for age-4 fish was 13.1 in.

A total of 38 channel catfish were sampled that weighed 45 lbs. They ranged in length from 9.0 to 21.5 in TL. Relative abundance was 7% by number and 29% by weight. The gill net catch rate was 17 catfish per hr. Thirty-five percent of the sampled catfish were quality size (≥ 16 in).

Crappie, which have not been collected since before the renovation of 1972, were collected in this survey. The six white crappie in this sample were all quality size fish (8.0 in or longer), ranging from 8.1 to 11.4 in TL. The one black crappie sampled was 6.3 in TL.

DISCUSSION

Oser Reservoir continues to provide fishing opportunities for bluegill and largemouth as well as other sunfish and catfish. Although it is impractical to directly compare results of this survey with the 1983 survey, some observations will be noted. For bluegill, rank by number and length range was identical to 1983 and relative abundance by number was similar. For 2006, the BGFP index estimated that the bluegill fishery is excellent because of a *good* bluegill density, PSD, and RSD8. The bluegill PSD was in the desired range for a balanced population and three bluegill at 8.0 in were collected. Growth appears to be average for southeastern Indiana.

Largemouth bass length range is similar between the two surveys, if the 20.4 in bass is excluded from the 2006 sample. In 2006, the bass PSD was in the desired range for a balanced population. Growth was satisfactory for southeastern Indiana. The 14-in minimum size limit should remain in effect to prevent over-harvest of largemouth bass, the primary source of predation on the growing gizzard shad population.

Channel catfish catch rates, which were relatively high, indicate that channel catfish are underutilized by anglers. Therefore, the stocking rate will be reduced. It is recommended that the present stocking rate of 750 per year be reduced to 375 per year.

The most significant and obvious difference between the 1983 survey and this survey is the abundance of gizzard shad. Gizzard shad ranked second by number in this survey; shad relative abundance was 17% by number and 32% by weight. Only one gizzard shad was collected in 1983, which was thought to be introduced via bait release (Lehman 1984). It is unknown how long shad have been a significant portion of this fish community, but their presence is undesirable. Gizzard shad directly compete with bluegill and young bass for zooplankton, which can lead to a decline in fishing. Oser Reservoir may have to renovated and restocked in the future if the fishery becomes too undesirable. As of this survey, Oser was providing good fishing opportunities.

RECOMMENDATIONS

- The DFW should maintain the 14-in minimum size limit on largemouth bass at Oser Reservoir.

- The DFW should reduce the number of channel catfish stocked every two years from 750 to 375 as long as it is felt channel catfish should be managed in this manner. These channel catfish should average at least 8 in long to reduce mortality from bass predation.

LITERATURE CITED

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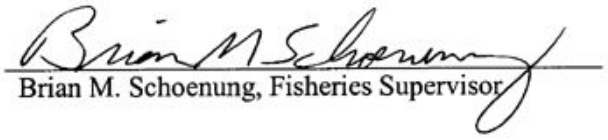
Submitted by: Clinton R. Kowalik, Assistant Fisheries Biologist
Date: April 3, 2007

Approved by: Larry L. Lehman, Fisheries Biologist

Approved by: 
Brian M. Schoenung, Fisheries Supervisor

Date: August 17, 2007

LAKE SURVEY REPORT

Type of Survey: [ ] Initial Survey [X] Re-Survey

Lake Name	County	Date of survey (Month, day, year)
Oser Reservoir	Ripley	July 25 to 26, 2006
Biologist's name		**Date of Approval (Month, day, year)**
Larry L. Lehman		August 17, 2007

LOCATION

Quadrangle Name	Range	Section
Batesville, IND. 1961. Photorevised 1980	12E	29
Township	**Nearest Town**	
10N	Batesville	

ACCESSIBILITY

State owned public access site	Privately owned public access site	Other access site: No ramp; boats can be carried over dam
None	None	

Surface acres	Maximum depth (ft)	Average depth (ft)	Volume (acre ft)	Water level (feet MSL)	Extreme fluctuations
15	15	7.5*	112.5	932	929 to 932.5 ft MSL

Location of benchmark: Approximately 1 mi west of lake on SR 229 at Cross Roads

INLETS

Name	Location	Origin
Unnamed	Upper (north) end	

OUTLETS

Name	Location
Unnamed tributary of Bobs Creek	Below principal spillway in the dam

Water level control: Principal spillway is a concrete drop box. Lake can be drained through the water intake pipe.

POOL	ELEVATION (ft MSL)	ACRES
TOP OF DAM		
TOP OF FLOOD CONTROL POOL		
NORMAL POOL	932	15
TOP OF MINIMUM POOL		
STREAMBED		

Bottom type

	Boulder
	Gravel
x	Sand
	Muck
x	Clay
	Marl

Watershed use**: Grass/pasture, forest, high and low density residential, and a small amount of commercial use are present.

Development of shoreline: A Girl Scouts camp is located on east side of Oser Reservoir. Several private homes sit near the shoreline. One private dock is present.

Previous surveys and investigations: Fisheries survey 1971. Drained, renovated, and restocked 1972. Spot-check survey 1973.

Fisheries survey 1974 and 1983.

*Assumed to be 1/2 the maximum depth

**source is http://pasture.ecn.purdue.edu

SAMPLING EFFORT					
ELECTROFISHING	Day hours: 0		Night hours: 0.50**		Total hours: 0.50**
TRAP NETS	Number of traps: 1		Number of Lifts: 1 lift per net		Total effort: 1 Lift
GILL NETS	Number of nets: 2		Number of Lifts: 1 lift per net		Total effort: 2 Lifts
ROTENONE	Gallons: 0	ppm:	Acre Ft Treated:	SHORELINE SEINING	Number of 100 Ft Seine Hauls: none

PHYSICAL AND CHEMICAL CHARACTERISTICS	
Color: Gray-green	Turbidity: 2 Ft 11 In (SECCHI DISK)
Alkalinity (ppm)*: Surface: 137 Bottom: 171	pH: Surface: 8.8 Bottom: 7.3
Conductivity: 235 micromhos/cm	Air temperature: 81 °F
Water chemistry GPS coordinates: N 39.28059219	W -85.22339176

TEMPERATURE AND DISSOLVED OXYGEN (D.O.)								
DEPTH (FT)	Degrees (°F)	D.O. (ppm)	DEPTH (FT)	DEGREES (°F)	D.O. (ppm)	DEPTH (FT)	DEGREES (°F)	D.O. (ppm)
SURFACE	84.7	11.91	36			72		
2	82.6	11.44	38			74		
4	80.1	9.40	40			76		
6	79.2	7.55	42			78		
8	78.1	2.00	44			80		
10	72.1	0.71	46			82		
12	64.9	0.70	48			84		
14	60.1	0.69	50			86		
15 (bottom)	58.6	0.66	52			88		
18			54			90		
20			56			92		
22			58			94		
24			60			96		
26			62			98		
28			64			100		
30			66					
32			68					
34			70					

COMMENTS
**Electrofisher settings: 707 volts DC, output mode = 60 pps, and pulse width = 3 ms (~4 amps).

*ppm-parts per million

Occurrence and Abundance of Submersed Aquatic Plants in Oser Reservoir

Date:	7/26/06	Littoral sites with plants:	22	Species diversity:	0.62
Littoral depth (ft):	7.5	Number of species:	5	Native diversity:	0.58
Littoral sites:	22	Maximum species/site:	5	Rake diversity:	0.59
Total sites:	30	Mean number species/site:	1.68	Native rake diversity:	0.51
Secchi (ft):	3.2	Mean native species/site:	0.77	*Mean rake score:	3.55

Common Name	Site frequency	Relative density	Mean density	Dominance
Eurasian watermilfoil**	90.9	2.36	2.60	47.3
Filamentous algae	54.5			
Chara sp.	45.5	1.18	2.60	23.6
Brittle naiad	18.2	0.55	3.00	10.9
Leafy pondweed	9.1	0.09	1.00	1.8
Southern naiad	4.5	0.05	1.00	0.9

Other Observed Plants

SUBMERSED: American pondweed, Curlyleaf pondweed** (a turion was observed)

FREE FLOATING: Duckweed (Lemna sp.), Watermeal (Wolffia sp.)

EMERGENT: Arrowhead sp., Creeping water primrose, Bulrush sp., Spikerush sp., Water plantain sp.

Creeping water primrose was found along 90% of the shoreline, extending out to 20 feet at some places.

*Mean rake score includes filamentous algae.
**Exotic plant.

SPECIES AND RELATIVE ABUNDANCE OF FISHES COLLECTED BY NUMBER AND WEIGHT					
*COMMON NAME OF FISH	NUMBER	PERCENT	LENGTH RANGE (in)	WEIGHT (lbs)	PERCENT
Bluegill	289	52.0	0.5-8.0	10.21	6.6
Gizzard shad	97	17.4	9.3-13.8	49.89	32.3
Redear sunfish	63	11.3	2.2-8.5	8.93	5.8
Largemouth bass	55	9.9	1.5-20.4	35.46	23.0
Channel catfish	38	6.8	9.0-21.5	45.39	29.4
White crappie	6	1.1	8.1-11.4	2.68	1.7
Hybrid sunfish	6	1.1	2.1-6.9	0.80	0.5
Yellow bullhead	1	0.2	11.8	0.84	0.5
Black crappie	1	0.2	6.3	0.14	0.1
Western mosquitofish were observed.					
Totals (8 species & 1 hybrid)	556	100.0		154.34	100.0

*Common names of fishes recognized by the American Fisheries Society.

SIZE STRUCTURE SUMMARY FOR BLUEGILL

					TN	GN	EF
Lake:	Oser Reservoir			Total # fish	22	0	267
Date:	7/25/2006	to	7/26/2006	Effort	1	2	0.50
Species:	Bluegill			CPUE	22.0	0.0	534.0
Total number:	289						
Total weight (lbs):	10.21						
Length range (in):	0.5*	to	8.0	*1.0 in length group also includes 39 fish (0.5-0.9 in)			

Group	TL (in)	TN	GN	EF	TOTAL	RSD	
Stock	3	4	0	73	77	-	
Quality	6	1	0	25	26	34	= PSD = 25/73(100)
Preferred	8	0	0	3	3	4	
Memorable	10	0	0	0	0		
Trophy	12	0	0	0	0		

% ≥ 6 in = 26/289(100) = 9

Length group (in)	#	Mean weight (lbs)	Length group (in)	#	Mean weight (lbs)	Length group (in)	#	Mean weight (lbs)
1.0*	65	<0.01	17.5			34.0		
1.5	59	<0.01	18.0			34.5		
2.0	54	<0.01	18.5			35.0		
2.5	34	0.01	19.0			35.5		
3.0	9	0.02	19.5			36.0		
3.5	11	0.04	20.0			36.5		
4.0	17	0.05	20.5			37.0		
4.5	9	0.07	21.0			37.5		
5.0	4	0.09	21.5			38.0		
5.5	1	0.11	22.0			38.5		
6.0	6	0.18	22.5			39.0		
6.5	5	0.22	23.0			39.5		
7.0	8	0.27	23.5			40.0		
7.5	4	0.30	24.0			40.5		
8.0	3	0.38	24.5			41.0		
8.5			25.0			41.5		
9.0			25.5			42.0		
9.5			26.0			42.5		
10.0			26.5			43.0		
10.5			27.0			43.5		
11.0			27.5			44.0		
11.5			28.0			44.5		
12.0			28.5			45.0		
12.5			29.0			45.5		
13.0			29.5			46.0		
13.5			30.0			46.5		
14.0			30.5			47.0		
14.5			31.0			47.5		
15.0			31.5			48.0		
15.5			32.0			48.5		
16.0			32.5			49.0		
16.5			33.0			49.5		
17.0			33.5			50.0		

AGE-LENGTH KEY FOR BLUEGILL

Length group (in)	Total # number	Sub-sample	Age 1	2	3	4	5	6	7
1.0	65								
1.5	59	8	59						
2.0	54	6	54						
2.5	34	5	34						
3.0	9	5	5	4					
3.5	11	5		9	2				
4.0	17	7		17					
4.5	9	7		3	6				
5.0	4	4			4				
5.5	1	1			1				
6.0	6	5				2	2	1	
6.5	5	3				3	2		
7.0	8	6				3	3	3	
7.5	4	4					2	2	
8.0	3	3					1	2	
Total	289	69	152	32	14	8	10	8	0

GROWTH SUMMARY FOR BLUEGILL AT DATE OF CAPTURE

Lake: Oser Reservoir
Date: 7/25/2006 to 7/26/2006
Species: Bluegill

Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
1	152	2.2	0.19	0.04	2.1	2.3
2	32	4.0	0.16	0.07	3.9	4.2
3	14	4.8	0.33	0.16	4.5	5.1
4	8	6.8	0.17	0.14	6.5	7.1
5	10	7.1	0.48	0.22	6.7	7.6
6	8	7.5	0.48	0.25	7.0	8.0

SIZE STRUCTURE SUMMARY FOR GIZZARD SHAD

Lake:	Oser Reservoir		
Date:	7/25/2006	to	7/26/2006
Species:	Gizzard shad		
Total number:	97		
Total weight (lbs):	49.89		
Length range (in):	9.3	to	13.8

	TN	GN	EF
Total # fish	0	84	13
Effort	1	2	0.50
CPUE	0.0	42.0	26.0

Group	TL (in)	TN	GN	EF	TOTAL	RSD
Stock	7	0	84	13	97	-
Quality	11	0	47	11	58	85
Preferred						
Memorable						
Trophy						

Length group (in)	#	Mean weight (lbs)	Length group (in)	#	Mean weight (lbs)	Length group (in)	#	Mean weight (lbs)
1.0			17.5			34.0		
1.5			18.0			34.5		
2.0			18.5			35.0		
2.5			19.0			35.5		
3.0			19.5			36.0		
3.5			20.0			36.5		
4.0			20.5			37.0		
4.5			21.0			37.5		
5.0			21.5			38.0		
5.5			22.0			38.5		
6.0			22.5			39.0		
6.5			23.0			39.5		
7.0			23.5			40.0		
7.5			24.0			40.5		
8.0			24.5			41.0		
8.5			25.0			41.5		
9.0	1	0.28	25.5			42.0		
9.5			26.0			42.5		
10.0	4	0.39	26.5			43.0		
10.5	34	0.44	27.0			43.5		
11.0	30	0.48	27.5			44.0		
11.5	11	0.56	28.0			44.5		
12.0	6	0.62	28.5			45.0		
12.5	3	0.75	29.0			45.5		
13.0	6	0.80	29.5			46.0		
13.5	2	0.91	30.0			46.5		
14.0			30.5			47.0		
14.5			31.0			47.5		
15.0			31.5			48.0		
15.5			32.0			48.5		
16.0			32.5			49.0		
16.5			33.0			49.5		
17.0			33.5			50.0		

SIZE STRUCTURE SUMMARY FOR REDEAR SUNFISH

Lake:	Oser Reservoir		
Date:	7/25/2006	to	7/26/2006
Species:	Redear sunfish		
Total number:	63		
Total weight (lbs):	8.93		
Length range (in):	2.2	to	8.5

	TN	GN	EF
Total # fish	3	4	56
Effort	1	2	0.50
CPUE	3.0	2.0	112.0

Group	TL (in)	TN	GN	EF	TOTAL	RSD
Stock	4	3	4	28	35	-
Quality	7	2	2	11	15	39
Preferred	9	0	0	0	0	
Memorable	11	0	0	0	0	
Trophy	13	0	0	0	0	

% ≥ 7 in = 15/63(100) = 24

Length group (in)	#	Mean weight (lbs)	Length group (in)	#	Mean weight (lbs)	Length group (in)	#	Mean weight (lbs)
1.0			17.5			34.0		
1.5			18.0			34.5		
2.0	12	<0.01	18.5			35.0		
2.5	9	0.01	19.0			35.5		
3.0	6	0.02	19.5			36.0		
3.5	1	0.03	20.0			36.5		
4.0			20.5			37.0		
4.5			21.0			37.5		
5.0			21.5			38.0		
5.5	2	0.14	22.0			38.5		
6.0	7	0.18	22.5			39.0		
6.5	11	0.22	23.0			39.5		
7.0	10	0.28	23.5			40.0		
7.5	3	0.32	24.0			40.5		
8.0	1	0.39	24.5			41.0		
8.5	1	0.45	25.0			41.5		
9.0			25.5			42.0		
9.5			26.0			42.5		
10.0			26.5			43.0		
10.5			27.0			43.5		
11.0			27.5			44.0		
11.5			28.0			44.5		
12.0			28.5			45.0		
12.5			29.0			45.5		
13.0			29.5			46.0		
13.5			30.0			46.5		
14.0			30.5			47.0		
14.5			31.0			47.5		
15.0			31.5			48.0		
15.5			32.0			48.5		
16.0			32.5			49.0		
16.5			33.0			49.5		
17.0			33.5			50.0		

AGE-LENGTH KEY FOR REDEAR SUNFISH

Length group (in)	Total number	Sub-sample	Age 1	2	3	4	5	6	7
1.0									
1.5									
2.0	12	6	12						
2.5	9	5	9						
3.0	6	6	6						
3.5	1	1	1						
4.0									
4.5									
5.0									
5.5	2	2		1	1				
6.0	7	6		1	5	1			
6.5	11	5			2	9			
7.0	10	5			6	4			
7.5	3	3				1	2		
8.0	1	1						1	
8.5	1	1						1	
9.0									
Total	63	41	28	2	14	15	2	2	0

GROWTH SUMMARY FOR REDEAR SUNFISH AT DATE OF CAPTURE

Lake: Oser Reservoir
Date: 7/25/2006 to 7/26/2006
Species: Redear sunfish

Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
1	28	2.7	0.20	0.08	2.5	2.8
2	2	6.0	0.12	0.23	5.6	6.5
3	14	6.7	0.28	0.14	6.4	7.0
4	15	6.9	0.14	0.10	6.7	7.1
5	2	7.8	0.00	0.00	7.8	7.8
6	2	8.5	0.13	0.25	8.0	9.0

SIZE STRUCTURE SUMMARY FOR LARGEMOUTH BASS

Lake:	Oser Reservoir		
Date:	7/25/2006	to	7/26/2006
Species:	Largemouth bass		
Total number:	55		
Total weight (lbs):	35.46		
Length range (in):	1.5	to	20.4

	TN	GN	EF
Total # fish	0	4	51
Effort	1	2	0.50
CPUE	0.0	2.0	102.0

Group	TL (in)	TN	GN	EF	TOTAL	RSD	
Stock	8	0	2	33	35	-	
Quality	12	0	1	17	18	52	= PSD = 17/33(100)
Preferred	15	0	1	0	1		
Memorable	20	0	1	0	1		
Trophy	25	0	0	0	0		

% ≥ 14 in = 4/55(100) = 7

Length group (in)	#	Mean weight (lbs)	Length group (in)	#	Mean weight (lbs)	Length group (in)	#	Mean weight (lbs)
1.0			17.5			34.0		
1.5	1	<0.01	18.0			34.5		
2.0	1	<0.01	18.5			35.0		
2.5			19.0			35.5		
3.0			19.5			36.0		
3.5			20.0	1	4.56	36.5		
4.0			20.5			37.0		
4.5			21.0			37.5		
5.0			21.5			38.0		
5.5			22.0			38.5		
6.0	5	0.11	22.5			39.0		
6.5	5	0.14	23.0			39.5		
7.0	4	0.16	23.5			40.0		
7.5	4	0.22	24.0			40.5		
8.0	1	0.24	24.5			41.0		
8.5			25.0			41.5		
9.0	2	0.38	25.5			42.0		
9.5	2	0.45	26.0			42.5		
10.0	6	0.53	26.5			43.0		
10.5	2	0.61	27.0			43.5		
11.0	2	0.64	27.5			44.0		
11.5	2	0.74	28.0			44.5		
12.0	4	0.91	28.5			45.0		
12.5	4	1.00	29.0			45.5		
13.0	5	1.12	29.5			46.0		
13.5	1	1.24	30.0			46.5		
14.0	2	1.49	30.5			47.0		
14.5	1	1.72	31.0			47.5		
15.0			31.5			48.0		
15.5			32.0			48.5		
16.0			32.5			49.0		
16.5			33.0			49.5		
17.0			33.5			50.0		

AGE-LENGTH KEY FOR LARGEMOUTH BASS

Length group (in)	Total number	Sub-sample	Age 1	2	3	4	5	6	8
1.0									
1.5	1								
2.0	1								
2.5									
3.0									
3.5									
4.0									
4.5									
5.0									
5.5									
6.0	5	5	5						
6.5	5	5	5						
7.0	4	4	5						
7.5	4	3	3	1					
8.0	1	1	1						
8.5									
9.0	2	2		2					
9.5	2	2		2					
10.0	6	6	4	2					
10.5	2	2		2					
11.0	2	2		1	1				
11.5	2	2		1	1				
12.0	4	3			3	1			
12.5	4	3				4			
13.0	5	5			3	2			
13.5	1	1				1			
14.0	2	2			1	1			
14.5	1	1					1		
15.0									
15.5									
16.0									
16.5									
17.0									
17.5									
18.0									
18.5									
19.0									
19.5									
20.0	1	1							1
Total	55	50	23	11	9	9	1	0	1

GROWTH SUMMARY FOR LARGEMOUTH BASS AT DATE OF CAPTURE

Lake: Oser Reservoir

Date: 7/25/2006 to 7/26/2006

Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
1	23	7.6	1.93	0.29	7.0	8.1
2	11	10.0	1.34	0.34	9.3	10.7
3	9	12.7	0.89	0.32	12.0	13.3
4	9	13.1	0.39	0.20	12.6	13.5
5	1	14.8				
6						
7						
8	1	20.3				

SIZE STRUCTURE SUMMARY FOR CHANNEL CATFISH

Lake:	Oser Reservoir		
Date:	7/25/2006	to	7/26/2006
Species:	Channel catfish		
Total number:	38		
Total weight (lbs):	45.39		
Length range (in):	9.0	to	21.5

	TN	GN	EF
Total # fish	0	34	4
Effort	1	2	0.50
CPUE	0.0	17.0	8.0

Group	TL (in)	TN	GN	EF	TOTAL	RSD
Stock	11	0	27	4	31	-
Quality	16	0	9	2	11	50
Preferred	24	0	0	0	0	
Memorable	28	0	0	0	0	
Trophy	36	0	0	0	0	

% ≥ 16 in = 11/31(100) = 35

Length group (in)	#	Mean weight (lbs)	Length group (in)	#	Mean weight (lbs)	Length group (in)	#	Mean weight (lbs)
1.0			17.5			34.0		
1.5			18.0			34.5		
2.0			18.5	2	2.26	35.0		
2.5			19.0	1	2.27	35.5		
3.0			19.5	1	3.13	36.0		
3.5			20.0			36.5		
4.0			20.5			37.0		
4.5			21.0	2	3.41	37.5		
5.0			21.5	1	4.00	38.0		
5.5			22.0			38.5		
6.0			22.5			39.0		
6.5			23.0			39.5		
7.0			23.5			40.0		
7.5			24.0			40.5		
8.0			24.5			41.0		
8.5			25.0			41.5		
9.0	2	0.22	25.5			42.0		
9.5	3	0.29	26.0			42.5		
10.0	2	0.34	26.5			43.0		
10.5			27.0			43.5		
11.0	4	0.40	27.5			44.0		
11.5			28.0			44.5		
12.0	1	0.51	28.5			45.0		
12.5	1	0.67	29.0			45.5		
13.0	3	0.69	29.5			46.0		
13.5	3	0.77	30.0			46.5		
14.0	1	0.97	30.5			47.0		
14.5	4	1.06	31.0			47.5		
15.0			31.5			48.0		
15.5	3	1.34	32.0			48.5		
16.0	2	1.41	32.5			49.0		
16.5	1	1.67	33.0			49.5		
17.0	1	1.79	33.5			50.0		

GPS LOCATION OF SAMPLING EQUIPMENT									
GILL NETS			TRAP NETS			ELECTROFISHING		
1	N 39.28404	W -85.22432	1	N 39.28259	W -85.22489	1	N 39.28045	W -85.22410
	N 39.28324	W -85.22419	2	N	W		N 39.28237	W -85.22380
2	N 39.28121	W -85.22416	3	N	W	2	N 39.28243	W -85.22381
	N 39.28190	W -85.22441	4	N	W		N 39.28450	W -85.22446
3	N	W	5	N	W	3	N	W
	N	W	6	N	W		N	W
4	N	W	7	N	W	4	N	W
	N	W	8	N	W		N	W
5	N	W	9	N	W	5	N	W
	N	W	10	N	W		N	W
6	N	W	11	N	W	6	N	W
	N	W	12	N	W		N	W
7	N	W	13	N	W	7	N	W
	N	W	14	N	W		N	W
8	N	W	15	N	W	8	N	W
	N	W	16	N	W		N	W
9	N	W	17	N	W	9	N	W
	N	W	18	N	W		N	W
10	N	W	19	N	W	10	N	W
	N	W	20	N	W		N	W
11	N	W				11	N	W
	N	W					N	W
12	N	W				12	N	W
	N	W					N	W
13	N	W				13	N	W
	N	W					N	W
14	N	W				14	N	W
	N	W					N	W
15	N	W				15	N	W
	N	W					N	W
16	N	W				16	N	W
	N	W					N	W
17	N	W				17	N	W
	N	W					N	W
18	N	W				18	N	W
	N	W					N	W
19	N	W				19	N	W
	N	W					N	W
20	N	W				20	N	W
	N	W					N	W